

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
11 May 2006 (11.05.2006)

PCT

(10) International Publication Number  
**WO 2006/049928 A2**

(51) International Patent Classification:  
**B01D 33/03** (2006.01)

(21) International Application Number:  
PCT/US2005/038159

(22) International Filing Date: 25 October 2005 (25.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10/977,782 29 October 2004 (29.10.2004) US

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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

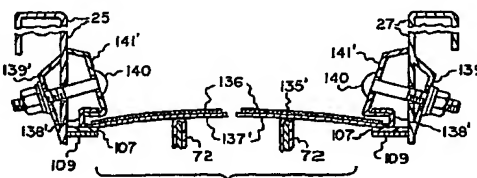
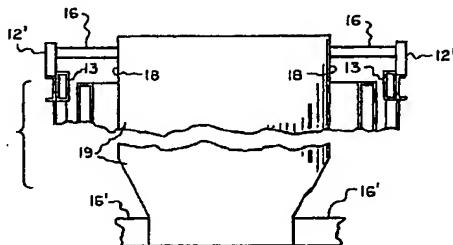
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *without international search report and to be republished upon receipt of that report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **VIBRATORY SCREEN ASSEMBLY AND METHOD OF MANUFACTURE**



(57) Abstract: A screen assembly comprising a support, a screen comprising peaks and troughs, and a coating on at least a portion of a plurality of the peaks. An apparatus for screening material comprising a frame, a motor mounted to the frame, a screen assembly supported by the frame, a chamber beneath the screen assembly adapted to be placed intermittently at less than atmospheric pressure, a screen formed in an undulating shape comprising a plurality of peaks and troughs, and a coating on at least a portion of a plurality of the peaks.

WO 2006/049928 A2

**VIBRATORY SCREEN ASSEMBLY AND METHOD OF MANUFACTURE****STATEMENT REGARDING FEDERALLY SPONSORED  
RESEARCH OR DEVELOPMENT**

Not Applicable

**BACKGROUND INFORMATION**

Embodiments of the present invention relate to a vibratory screen and a method for manufacturing screens. Such screens may be employed to withdraw liquid and fine particles from a slurry and also to cause coarse particles which are not withdrawn from the slurry to be relatively dry.

By way of background, in the oil drilling process, drilling mud is used for its conventional purposes of lubricating the drill and carrying drilled material to the surface. The combination of drilling mud and drilled material is a slurry of fine drilling mud solids, coarse drilled material particles and liquid. The primary liquid portion of the drilling mud may be oil or water, depending on whether the drilling mud is water-based or oil-based. It is desirable to recover the drilling mud for reuse because it can be expensive. It is also desirable to withdraw the liquid from the coarse drilled material particles so that the latter can be disposed of in an efficient manner.

**BRIEF SUMMARY OF THE SPECIFIC EMBODIMENTS**

It is accordingly an object of embodiments of the present invention to provide a screen assembly having a support having upper and lower surfaces and a plurality of apertures between the upper and lower surfaces; an undulating screen comprising peaks and troughs, such that the peaks are spaced apart from the upper surface of the support; and a coating that restricts the passage of air on at least a portion of the peaks of the screen.

It is further an object of embodiments of the present invention to provide an apparatus for screening material comprising a frame; a motor mounted to the frame and adapted for supplying vibration to the frame; a screen assembly as described above supported by the frame; and a chamber beneath the screen assembly adapted to be intermittently subjected to a suction.

**BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1 is a fragmentary side elevational view of the vibratory screening machine taken substantially in the direction of arrows 1-1 of Figure 3 and showing primarily the movable frame;